

LETTER

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Dermatology patients' knowledge and concerns regarding their immunomodulatory medication during the COVID-19 pandemic

Dear Editor,

Higher rates of morbidity and mortality due to coronavirus disease (COVID-19), caused by infection with severe acute respiratory syndrome corona virus 2 (SARS-CoV-2), are associated with increasing age, gender, and a variety of comorbidities. Given the apparent risk of infection from viral diseases in patients receiving immunomodulatory medications, we surveyed a sample of our dermatology patients on these treatments regarding their knowledge and perceived risk to the novel coronavirus. The phone call survey was carried out from 27 March 2020 to 3 April 2020 and included questions on demographics, comorbidities, immunomodulatory agent, and concern regarding immunosuppression. Self-isolation, knowledge of viral symptoms, cocooning/sheltering, and sourcing of information pertaining to COVID-19 were assessed. All 103 patients invited to participate completed the questionnaire. Information pertaining to patient demographics, underlying disease, and immunomodulatory treatments is shown in Table 1.

Over 90% were aware of one or more of the symptoms of COVID-19. Overall 53% of patients considered themselves at high risk of infection due to their medication (biologics, 62%; methotrexate, 53%; and Apremilast, 20%). Of those, 68% believed they were more likely to contract the virus while 84% sensed that their illness would be more severe. Three patients were noted to be in self-isolation, two due to symptoms of COVID-19, while the other had been in contact with a presumed case pending swabbing. None of these patients required hospitalization. Two of these patients had continued their medication.

The majority of patients (73%) had not sought advice on their medication since the COVID-19 pandemic outbreak. Of those who sought advice, most contacted their general practitioner (45%) followed by pharmacist (22%), nurse (11%), or pharmaceutical helpline (22%). No patient contacted the dermatology unit for advice. Others reported accessing information elsewhere: 13% from social media, 12% from the Irish Health Service Executive website, and 13% from television or radio. Of those still attending their workplace, 15% were front line including health care.

Overall 90% of patients had continued their medication while 10% (mainly biologics) stopped due to COVID-19 concerns. These patients stopped on their own initiative, not on advice received from health care professionals or information sources discussed earlier. Fifty-one percent reported that they would withhold treatment if they

became symptomatic, 41% would not discontinue unless advised by their dermatologist, with 8% stating they would not stop under any circumstance. Ninety-four percent of patients reported they were concerned regarding a flare of their underlying cutaneous disease should they discontinue their immunomodulatory treatment. While 6% of patients were concerned they would not be able to re-access their treatment if they were to discontinue it. Finally, 63% of patients expressed being very or moderately concerned regarding their personal COVID-19 risk, while 26% of patients believed that they should be cocooning/sheltering.

Most guidelines suggest that immunomodulating drugs are contraindicated in the presence of severe infection. However, there is no recommendation to discontinue them due to community-based infection risk. Prior to and during treatment, patients are routinely screened for a variety of infections including viral. They are encouraged to keep their vaccinations up to date. In our study, over 50% of patients considered themselves at high risk of the virus. This was the highest for those on biologics and the lowest for those on Apremilast, possibly due to an impression the latter was less immunosuppressive. Despite 63% expressing very or moderate concern regarding the virus only a minority sought further information, with only 12% consulting the health service website. There was a high degree of uncertainty expressed by patients about continuing their medication or whether they should be cocooning/sheltering. While a small number had discontinued their treatment, only half reported they would stop should they become symptomatic. A large proportion indicated they were awaiting further direction by their dermatologist.

Recommendations from the International League of Dermatological Societies¹ and expert opinion² recently published a pending consensus statement from Australia and New Zealand, suggesting that current evidence does not justify discontinuation of immunomodulators in otherwise fit patients without symptoms of COVID-19. However, they suggest further therapy should be deferred if there is suspicion of infection. Expert opinion advises discontinuation of immunomodulators for at least 4 weeks and until the patient is fully recovered in the context of confirmed COVID-19 infection. This expert advice also states it is reasonable to reduce the dose or discontinue treatment for 2 weeks in those not formally diagnosed with COVID-19 in the presence of cold/flu symptoms. The guidelines suggest that the benefit-to-risk ratio of immunomodulators needs to be considered carefully in patients at higher risk from COVID-19 due to

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TABLE 1 Summary of patients' characteristics and treatment

Gender	Male	Female
	51.4%	48.5%
	53 patients	50 patients
Age	10 to 18 years	18 to 30 years
	1.9%	9.7%
	2 patients	10 patients
Diagnosis	Psoriasis	HS
	94.2%	3.9%
	97 patients	4 patients
Length of diagnosis	<1 years	1 to 5 years
	1.9%	6.8%
	2 patients	7 patients
Drug treatment	Anti-TNF inhibitor	Anti-IL17-A
	31.1%	18.4%
	32 patients	19 patients
Duration of treatment	<1 year	1 to 5 years
	28.2%	59.2%
	29 patients	61 patients
Patients with comorbidities	None	One
	25.2%	40.8%
	26 patients	42 patients
Patients with comorbidities	Overweight	Smoking
	39.8%	28.2%
	41 patients	29 patients
Occupational status	Unemployed prior to outbreak	Employed prior to outbreak
	39.8%	60.2%
	41 patients	62 patients

Patients with comorbidities	Two	Three	>Three
	20.4%	9.7%	3.9%
	21 patients	10 patients	4 patients
Patients with comorbidities	HTN	Diabetes	Asthma
	21.4%	12.6%	11.7%
	22 patients	13 patients	12 patients
Occupational status	Of those previously employed still attending workplace	Of those previously employed now home working	Of those previously employed with work suspended
	23.3%	11.7%	25%
	24 patients	12 patients	26 patients

Abbreviations: DMS, dermatomyositis; HS, hidradenitis suppurativa; HTN, hypertension.

age or comorbidities. This survey highlights that a high proportion of dermatology patients on immunomodulators have comorbidities associated with a more severe COVID-19 illness (Table 1). Given the likely prolonged nature of this pandemic, clinicians may need to consider risks and benefits of immunomodulators for each individual and communicate this to the patient.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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